RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

| Source: IFUP | Application Serial Number: | 10/565 821 |
|--------------------------------|----------------------------|------------|
| Date Processed by STIC: 2/0/06 | | 1FLIP |
| | Date Processed by STIC: | 2/1/06 |

ENTERED



T 17146

RAW SEQUENCE LISTING DATE: 02/07/2006
PATENT APPLICATION: US/10/565,821 TIME: 13:45:57

Input Set : A:\81926.0006.txt

3 <110> APPLICANT: Gentronix Limited
4 Walmsley, Richard M

```
Billinton, Nicholas
   7 <120> TITLE OF INVENTION: Genotoxicity Testing
   9 <130> FILE REFERENCE: 81926.0006
-> 11 <140> CURRENT APPLICATION NUMBER: US/10/565,821
-> 11 <141> CURRENT FILING DATE: 2006-01-24
  11 <150> PRIOR APPLICATION NUMBER: PCT/GB2004/003337
  12 <151> PRIOR FILING DATE: 2004-07-30
  14 <160> NUMBER OF SEQ ID NOS: 9
  16 <170> SOFTWARE: PatentIn version 3.3
  18 <210> SEO ID NO: 1
  19 <211> LENGTH: 10661
  20 <212> TYPE: DNA
  21 <213> ORGANISM: Unknown
  23 <220> FEATURE:
  24 <223> OTHER INFORMATION: Recombinant Vector "pGen001"
  26 <400> SEQUENCE: 1
  27 gatccaaget atctactgag atttctggct cttttgttgt actgtcacct aaccacagac
                                                                             60
  29 caagcatcca agccatactt tttacagcag gagttacaag gtcactacgt ccagtgagaa
                                                                            120
  31 atttagataa aacaccattt cctgcgagta ctggaccaaa tcttatgcag ctagaaattc
                                                                            180
  33 tcaattgage atcaagataa tccaaatcte taacttcaat gtcaaagttg aaatattete
                                                                            240
  35 ctttagagcg ctccatttct tctatgaagc gttttgcggc aaactcacct tcaactgtca
                                                                            300
  37 ttgggaatgt cttatgatgg ttttttggaa ttattattat cctaccatca agcgtctgac
                                                                            360
  39 attgctgcag atttctccat ctcactttat atttggtggc atttctacca cttttttcca
                                                                            420
  41 acagtggttt ggtagggacc ctgactgaca atttatgacc tgcagtacat tgtaatgcaa
                                                                            480
  43 gacgctgata aactgttcta cgcctgggat ctaacctacc aggttcacct tcaaaagctc
                                                                            540
  45 tgtgtttggt tttttgctgt atattataga ttttctgata gccctgtgtg acatttatga
                                                                            600
  47 cgcgggcagc ggagccatct gcgcacataa cgtaagagtt agccgtgacg tttgcgatgt
                                                                            660
  49 ctttaatttc accgttagcc atcagaatag tcgtgttttc agaaagcatt ttgatccgac
                                                                            720
  51 atacgatgac ctcaatgatt tagattatgt gttgcacttt tatagaccta ccaaaaatcc
                                                                            780
  53 agtgcgtaca ctaatacttt cataaaqata cctgaaacaa taaccagaaa gatcggcaaa
                                                                            840
  55 aaaatttttt ttctttgccg agatcacaaa cctactatga cgaaaaagct tgaagtttag
                                                                            900
  57 atgagtaagg aaaatacaag tgacgctttt atatggtgca aggaacaaaa actaaaaaca
                                                                            960
  59 acaaggcaaa tgtggatctg tcatgtatgg caacgacagc aggatggctc acaaaaaaaag
                                                                           1020
  61 acaaaaaaaa ctaaggcaaa agaacaaagc tcctctcctg ctcaagaaac gtattgttga
                                                                           1080
  63 aaaaccaccg tcgtaagaaa gtttttctgt gacctataat ggtttaaaat cggcccattt
                                                                           1140
  65 tttttccctc ttttgtggtc cagtctttct catactcgag ggaaattcga cacaaacagc
                                                                           1200
  67 ggagaagtgt ggctaaaccg gcaagtgcct gcaagatcca cagaactaac cgcacgaact
                                                                           1260
  69 ggcggtcaga aaagagcctg ttccggaaag agagaaacag agaaacgatc atgatgggaa
                                                                           1320
  71 agcggggatt cggcgaagaa cgagactgga aagggaaaaa gagaaatact ggtggaagta
                                                                           1380
  73 ttcggacctt tggcgaagtc cgaaccettg aaacccaaag atgatcgatg attcattttt
                                                                           1440
  75 caatgegeta eggtteetge egetegtggg aaccecaege aaaacatatt attegettet
                                                                           1500
```

RAW SEQUENCE LISTING DATE: 02/07/2006
PATENT APPLICATION: US/10/565,821 TIME: 13:45:57

Input Set : A:\81926.0006.txt

| 77 | ctctqctqac | aactccggtt | tacgttatac | cgtattagga | tcactataaq | ggttccttcg | 1560 |
|-----|------------|--------------|------------|--------------|--------------|--------------|--------------|
| | | ggaggggaag | | | | | 1620 |
| | | aaattcgttt | | | | | 1680 |
| | | tggggtgggc | | | | | 1740 |
| | | ccagctcacg | | | | | 1800 |
| | | tttctgtgct | | | | | 1860 |
| | | gcttgcatgt | | | | | 1920 |
| | | tattctgctc | | | | | 1980 |
| | - | tactactcaa | | | - | | 2040 |
| | - | aaaatttaac | | | _ | | 2100 |
| | | gtggtgccat | | | | | 2160 |
| | | ataaaaagta | | | | | 2220 |
| | | | | | | agatctaact | 2280 |
| | | | | | | ctagagcagc | 2340 |
| 105 | aacttttctc | tttcttcact | aaagctgcta | cgaaagtata | gaaaaatcaa | acgctcagaa | 2400 |
| 107 | cttagctcta | ı tttcaaggta | ccatatatat | ttccttataa | ctgatgttaa | ttaactctaa | 2460 |
| 109 | aggtgaagaa | ttattcactg | gtgttgtccc | aattttggtt | gaattagat | gtgatgttaa | 2520 |
| 111 | tggtcacaaa | ttttctgtct | ccggtgaagg | tgaaggtgat | gctacttacg | g gtaaattgac | 2580 |
| 113 | cttaaaattt | atttgtacta | ctggtaaatt | gccagttcca | tggccaacct | tagtcactac | 2640 |
| 115 | tttcggttat | ggtgttcaat | gttttgcgag | atacccagat | catatgaaad | aacatgactt | 2700 |
| 117 | tttcaagtct | gccatgccag | aaggttatgt | tcaagaaaga | actattttt | tcaaagatga | 2760 |
| 119 | cggtaactac | : aagaccagag | ctgaagtcaa | gtttgaaggt | gataccttag | g ttaatagaat | 2820 |
| 121 | cgaattaaaa | ı ggtattgatt | ttaaagaaga | . tggtaacatt | : ttaggtcaca | a aattggaata | 2880 |
| 123 | caactataac | : tctcacaatg | tttacatcat | ggctgacaaa | caaaagaat | g gtatcaaagt | 2940 |
| 125 | taacttcaaa | ı attagacaca | acattgaaga | tggttctgtt | caattagctg | g accattatca | 3000 |
| | | | | | | acttatccac | 3060 |
| | | | | | | tgttagaatt | 3120 |
| | | | | | | tgcagggcgc | 3180 |
| | | | | | | a ataagttata | 3240 |
| | | | | | | g aaaattctta | 3300 |
| | | | | | | tgaggtcgct | 3360 |
| | | | | | | atagatetge | 3420 |
| | | | | | | g ctgaagttgt | 3480 |
| | | | | | | g gtgttggact | 3540 |
| | | | | | | ggcgacgcca | 3600 |
| | | | | | | g agctagcctc | 3660 |
| | | - | | | | aggaaatatg | 3720 |
| | | | | | | tttacatcta | 3780 |
| | | | | | | tcaatggccc | 3840 |
| | | | | | | cgatgataag | 3900 |
| | | | | | | tttttatagg | 3960 |
| | _ | - | _ | | | ggaaatgtgc | 4020 |
| | | | | | | g ctcatgagac | 4080 |
| | | | | | | attcaacatt | 4140 |
| | | | | | | gctcacccag | 4200 |
| | | | | | | ggttacatcg | 4260 |
| | | | | | | cgttttccaa | 4320 |
| | | | | | | gacgccgggc | 4380 4440 |
| 1/3 | aagagcaact | . cggrcgccgc | atacactatt | cicagaatga | citygttgag | , tactcaccag | 4440 |

RAW SEQUENCE LISTING DATE: 02/07/2006
PATENT APPLICATION: US/10/565,821 TIME: 13:45:57

Input Set : A:\81926.0006.txt

| 175 | +020202222 | agatattaga | astagastas | gagtaagaa | attatagaagt | aataaaataa | 4500 |
|-----|------------|------------|------------|------------|-------------|------------|------|
| | - | | gatggcatga | | | | 4560 |
| | | | gccaacttac | | | | 4620 |
| | | | atgggggatc | | | | |
| | | | aacgacgagc | | | | 4680 |
| | | | actggcgaac | | | | 4740 |
| | | • | aaagttgcag | | | | 4800 |
| | | | tctggagccg | | | | 4860 |
| 189 | cactggggcc | agatggtaag | ccctcccgta | tcgtagttat | ctacacgacg | gggagtcagg | 4920 |
| | | | agacagatcg | | | | 4980 |
| 193 | ggtaactgtc | agaccaagtt | tactcatata | tactttagat | tgatttaaaa | cttcattttt | 5040 |
| 195 | aatttaaaag | gatctaggtg | aagatccttt | ttgataatct | catgaccaaa | atcccttaac | 5100 |
| 197 | gtgagttttc | gttccactga | gcgtcagacc | ccgtagaaaa | gatcaaagga | tcttcttgag | 5160 |
| 199 | atccttttt | tctgcgcgta | atctgctgct | tgcaaacaaa | aaaaccaccg | ctaccagcgg | 5220 |
| 201 | tggtttgttt | gccggatcaa | gagctaccaa | ctctttttcc | gaaggtaact | ggcttcagca | 5280 |
| | | | gtccttctag | | | | 5340 |
| | | | tacctcgctc | | | | 5400 |
| | | | accgggttgg | | | | 5460 |
| | | | ggttcgtgca | | | | 5520 |
| | | | cgtgagctat | | | | 5580 |
| | | | agcggcaggg | | | | 5640 |
| | | | ctttatagtc | | | | 5700 |
| | | | tcaggggggc | | | | 5760 |
| | | | ttttgctggc | | | | 5820 |
| | | | cgtattaccg | | | | 5880 |
| | | | gagtcagtga | | | | 5940 |
| | | | tgcggtattt | | | | 6000 |
| | | | ttaagccagt | | | | 6060 |
| | | | cgccaacacc | | | | 6120 |
| | | | aagctgtgac | | | | 6180 |
| | | | | | | | 6240 |
| | | | gcgcgaggca | | | | 6300 |
| | | | ccaaaatctc | | | | 6360 |
| | | | gagttgacta | | | | 6420 |
| | | | acgtatactc | | | | |
| | - | | tatgcatatg | | | | 6480 |
| | | | gaggagtggc | | | | 6540 |
| | | | gcatggaatg | | | | 6600 |
| | | | cgcatataag | | | | 6660 |
| | | | atatacaggc | | | | 6720 |
| | | | cgcgttgcat | | | | 6780 |
| | | | tcctattctc | | | | 6840 |
| | | | agacgcactt | | | | 6900 |
| | | | aataccgctt | | | | 6960 |
| | | | tccctatata | | | | 7020 |
| | - | _ | tacattttt | _ | - | | 7080 |
| | | | attcatagag | | | | 7140 |
| | | | gagacaaaat | | | | 7200 |
| 267 | tgaagaatca | tcaacgctat | cactttctgt | tcacaaagta | tgcgcaatcc | acatcggtat | 7260 |
| | | | tttatcttga | | | | 7320 |
| 271 | agtaaacgcg | ggaagtggag | tcaggctttt | tttatggaag | agaaaataga | caccaaagta | 7380 |

RAW SEQUENCE LISTING DATE: 02/07/2006
PATENT APPLICATION: US/10/565,821 TIME: 13:45:57

Input Set : A:\81926.0006.txt

| 273 | gccttcttct | aaccttaacq | gacctacagt | gcaaaaagtt | atcaaqaqac | tgcattatag | 7440 |
|-----|------------|------------|------------|------------|------------|-------------|-------|
| | | | | gatgctttgt | | | 7500 |
| | | | | tagattcttt | | | 7560 |
| | | | | ctcagattct | | | 7620 |
| | | | | | | taaaatagcg. | 7680 |
| | | | | tgcagctcag | | | 7740 |
| | | | | aatgaagcac | | | 7800 |
| | | | | acagatgtct | | | 7860 |
| | | | | ctggcttctg | | | 7920 |
| | | | | ctccgtgtaa | | | 7980 |
| | | | | gctcacgata | | | 8040 |
| | | - | | acaactggcg | | | 8100 |
| | | | | cttcgttaat | | | 8160 |
| | | | | ccggaacata | | | 8220 |
| | | | | accgaagacc | | | 8280 |
| | | | | cgttcgctcg | | | 8340 |
| | | | | ccgggtcctc | | | 8400 |
| | | | | 999999999 | | | 8460 |
| | | | | ccgagattcc | | | 8520 |
| | | | | atacatgcat | | | 8580 |
| | | | | gcttcccagc | | | 8640 |
| | | | | aatagtcctc | | | 8700 |
| | | | | ctatactgtt | | | 8760 |
| | | | | aaccaatcgt | | | 8820 |
| | | | | aaatctttgt | | | 8880 |
| | | | | gagcccttgc | | | 8940 |
| | | | | tecgeegeet | | | 9000 |
| | | | | atgtctgccc | | | 9060 |
| 329 | cccgcagagt | actgcaattt | gactgtatta | ccaatgtcag | caaattttct | gtcttcgaag | 9120 |
| 331 | agtaaaaaat | tgtacttggc | ggataatgcc | tttagcggct | taactgtgcc | ctccatggaa | 9180 |
| 333 | aaatcagtca | agatatccac | atgtgttttt | agtaaacaaa | ttttgggacc | taatgcttca | 9240 |
| 335 | actaactcca | gtaattcctt | ggtggtacga | acatccaatg | aagcacacaa | gtttgtttgc | 9300 |
| 337 | ttttcgtgca | tgatattaaa | tagcttggca | gcaacaggac | taggatgagt | agcagcacgt | 9360 |
| 339 | tccttatatg | tagctttcga | catgatttat | cttcgtttcc | tgcaggtttt | tgttctgtgc | 9420 |
| 341 | agttgggtta | agaatactgg | gcaatttcat | gtttcttcaa | caccacatat | gcgtatatat | 9480 |
| | | | | tcttccttct | | | 9540 |
| 345 | aaaaaatttc | aaagaaaccg | gaatcaaaaa | aaagaacaaa | aaaaaaaag | atgaattgaa | 9600 |
| 347 | acccccccc | cccccgatgc | gccgcgtgcg | gctgctggag | atggcggacg | cgatggatat | 9660 |
| | | | | agttctccgc | | | 9720 |
| | | | | ccgccggctt | | | 9780 |
| | | | | aggcagacaa | | | 9840 |
| | _ | _ | | gaggcggcat | | | 9900 |
| | | | | gccgcgagcg | | | 9960 |
| | | | | gcctgcaacg | | | 10020 |
| | | | | atccagcctc | | | 10080 |
| | | | | gcgataatgg | | | 10140 |
| | | | | gcgagggcgt | | | 10200 |
| | | | | cgaaagcggt | | | 10260 |
| 369 | agcgctgccg | gcacctgtcc | tacgagttgc | atgataaaga | agacagtcat | aagtgcggcg | 10320 |

RAW SEQUENCE LISTING DATE: 02/07/2006

PATENT APPLICATION: US/10/565,821 TIME: 13:45:57

Input Set : A:\81926.0006.txt

| 373 375 377 379 381 | ateggtegae aggeegttga cccceggeea tggegageee | gctctccctt gcaccgccgc cggggcctgc gatcttcccc tgatgccggc | ccaccggaag atgcgactcc cgcaaggaat caccataccc atcggtgatg cacgatgcgt | tgcattagga ggtgcatgca acgccgaaac tcggcgatat | agcagcccag aggagatggc aagcgctcat aggcgccagc | tagtaggttg gcccaacagt gagcccgaag | 10380 10440 10500 10560 10620 10661 |
|---------------------------------|--|--|--|--|--|--|--|
| | <211> LENG | | | | | | |
| | <212> TYPE | | | | | | |
| 387 | <213> ORGAI | NISM: Unknow | wn | | | | |
| 389 | <220> FEAT | URE: | | | | | |
| 390 | <223> OTHE | R INFORMATIO | ON: Recombi | nant Vector | "pGen001" | | |
| 392 | <400> SEQUI | ENCE: 2 | | | | | |
| 393 | gatccaagct | atctactgag | atttctggct | cttttgttgt | actgtcacct | aaccacagac | 60 |
| 395 | caagcatcca | agccatactt | tttacagcag | gagttacaag | gtcactacgt | ccagtgagaa | 120 |
| 397 | atttagataa | aacaccattt | cctgcgagta | ctggaccaaa | tcttatgcag | ctagaaattc | 180 |
| | | | tccaaatctc | | | | 240 |
| | | | tctatgaagc | | | | 300 |
| | | | ttttttggaa | | | | 360 |
| | | | ctcactttat | | | | 420 |
| | | | ctgactgaca | - | - | | 480 |
| | | | cgcctgggat | | | | 540 |
| | | | atattataga | | | | 600 |
| | | | gcgcacataa | | | | 660 |
| | | | atcagaatag | | | | 720 |
| | | | tagattatgt | | | | 780 |
| | | | cataaagata | | | | 840 |
| | | | agatcacaaa | | | | 900 |
| | | | tgacgctttt | | | | 960 |
| | | | tcatgtatgg | | | | 1020 |
| | | | agaacaaagc | | | | 1080 |
| | • | | gtttttctgt | | | | 1140 |
| | | | cagtctttct | | | | 1200 |
| | | | gcaagtgcct | | | | 1260 |
| | | | ttccggaaag | | | | 1320 |
| | | | cgagactgga | | | | 1380 1440 |
| | | | cgaacccttg | | | | 1500 |
| | | | cgctcgtggg tacgttatac | | | | 1560 |
| | | | aatgtacatc | | | | 1620 |
| | | | tcaatgatat | | | | 1680 |
| | | | ggacaaagct | | | | 1740 |
| | | | ttgctgaaca | | | | 1800 |
| | | | agctatgtct | | | | 1860 |
| | | | gatgtcctgc | | | | 1920 |
| | | | gaagatctgt | | | | 1980 |
| | | | cgcgtacgca | | | | 2040 |
| | | | atcttgaaaa | | | | 2100 |
| | | | gtatgctatt | | | | 2160 |
| | JJ J | J JJ J | JJ | | JJJJJJ | | |

VERIFICATION SUMMARY

DATE: 02/07/2006

PATENT APPLICATION: US/10/565,821

TIME: 13:45:58

Input Set : A:\81926.0006.txt

Output Set: N:\CRF4\02012006\J565821.raw

11 M:270 C: Current Application Number differs, Replaced Current Application No

11 M:271 C: Current Filing Date differs, Replaced Current Filing Date